3. EXISTING DDOT PRACTICE

This chapter presents the current District practice for streetlight usage. It includes types of poles, lamps, wattages, illumination levels, special requirements, etc.

3.1 POLES

Figure 5 through Figure 7 show the various streetlight poles used in the District (referred to as Washington Family of Streetlight Poles in this document). Several streetlight poles are being phased out or have already been rendered obsolete. The different types of poles are described below.

Older Types

Figure 5 shows some obsolete poles. The *10th Street Mall* poles have a few installations in L 'Enfant Plaza and are being phased out. The *New York Avenue Rotary Type* poles are no longer used and the *RLA* poles are being phased out.

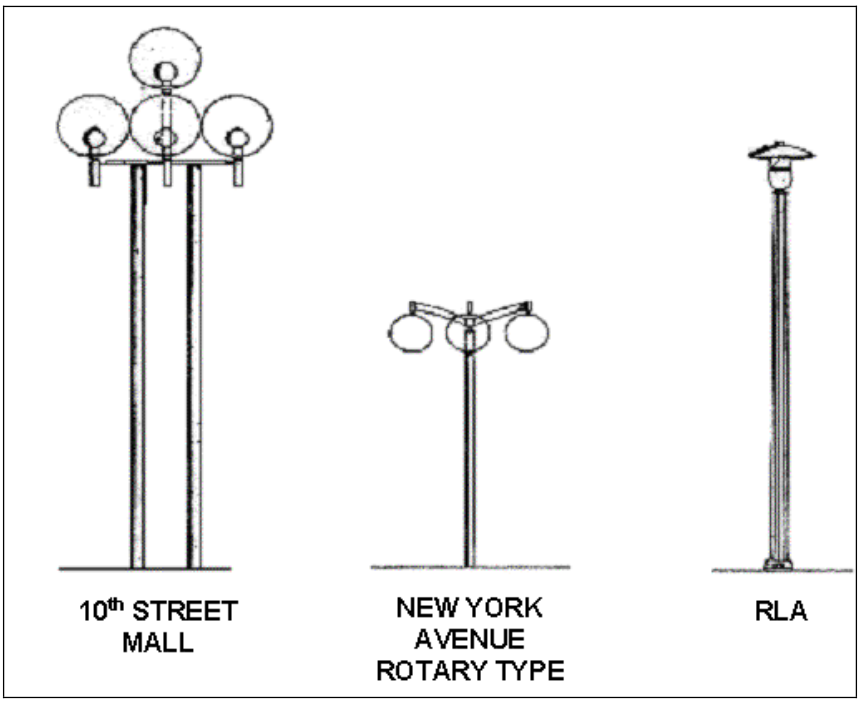

Figure 5. Washington Family --Older Types

Washington Upright Poles

This group includes Nos. 716, 16, 18, 13N, 14, 17M, 19M, Twin-20 and State Department Twin-20. The Nos. 13N, 17 M, 19M and State Department Twin-20 poles are now obsolete.

The Washington Upright poles (e.g., Nos. 716, 14, 16, 18, and Twin-20) are used in the historic districts/streets. No. 16 is the most commonly used upright pole; No. 716 is considered to be an inexpensive version of No.16 ($5000 vs. $2500). In the Downtown area near Foggy Bottom, No. 18 poles are used. The Twin-20 poles are used in Downtown, in historic districts and several entry points into Washington, DC.

The Nos. 16 and 18 poles use 24-inch bases and 15-inch bolt circles and can accommodate 70-400 Watt lamps. The No. 14 pole, on the other hand, uses a 17-inch base and 10.5-inch bolt circles and can accommodate 70-150 Watt lamps, since it is limited by the size of the casing. 716 poles are steel octaflute with a 9.5 inches bolt circle. AD11 poles, a variation of No. 716 poles, are used for traffic signals.

In a pole, the shaft is always made of steel, whereas the base, arm and casing can be cast iron or aluminum. In the past, fiberglass poles were used, but are obsolete now. All the poles in DC are powder coated and most of the times have a breakaway base (except near signalized intersections).

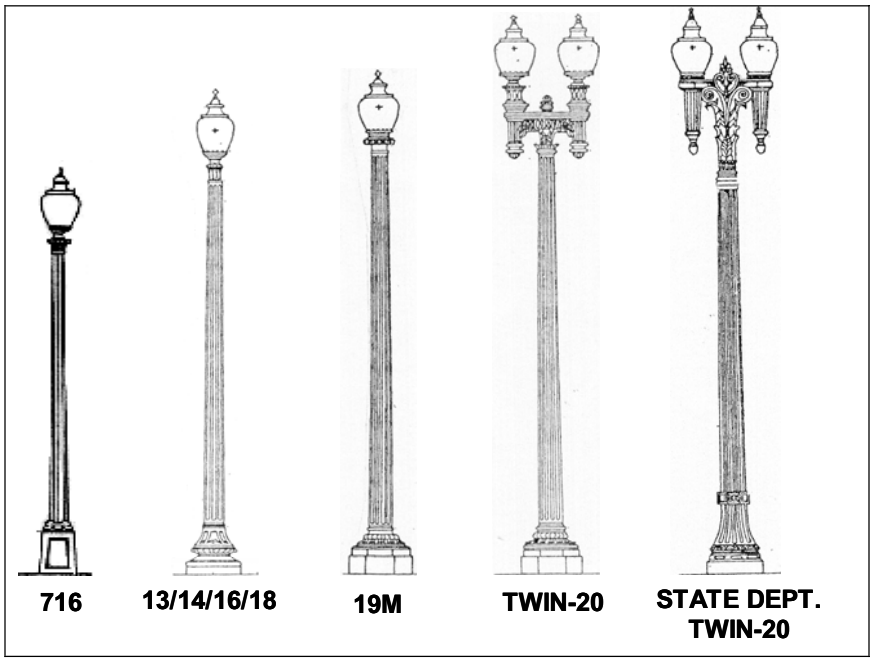

Figure 6. Washington Family – Upright Poles

Pendant Post and 5A Alley Poles

The Pendant Post poles are installed citywide and can accommodate 70-400 Watt lamps with either single or twin arm(s). The District typically uses Cobrahead type arms and fixtures (although there are limited installations of Teardrop fixtures, another type of Pendant Post implementation). Pendant Post poles have an octaflute type of cross-section.

The most widely used Pendant Post poles are 28 feet –6 inches tall; 38 feet-6 inches tall poles are also used. There are a few high-mast (70 feet-100 feet tall) Pendant Post poles in the City that use 1000 Watt High Pressure Sodium (HPS) lamps.

The 5A Alley post is widely used in alleys.

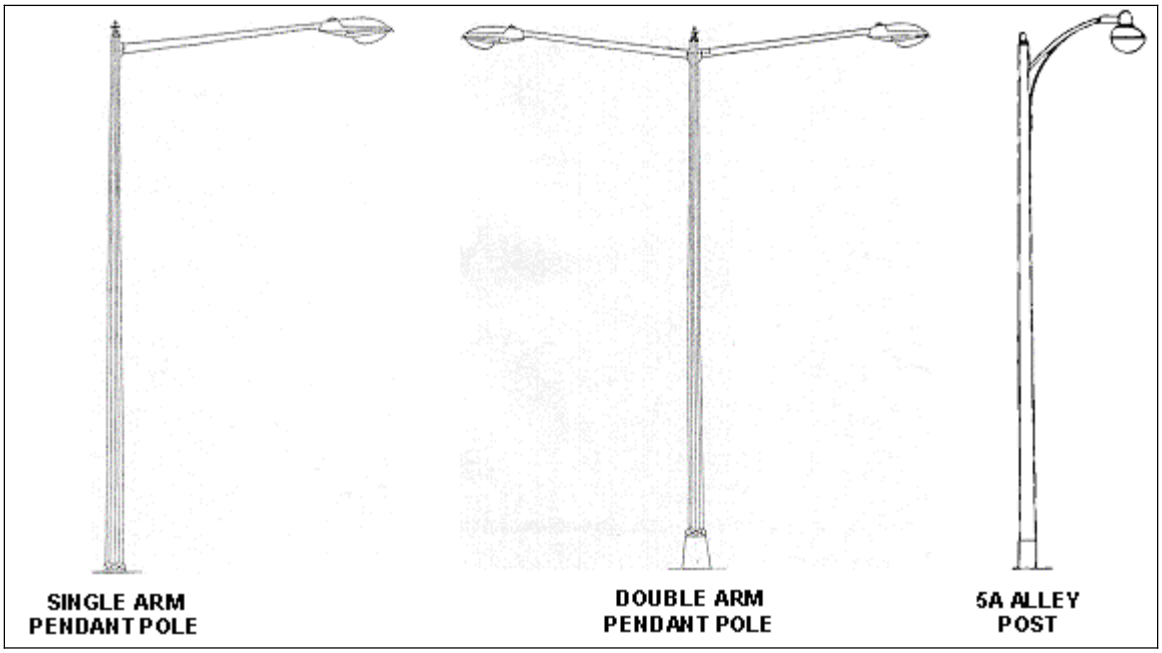

Figure 7. Washington Family – Pendant Posts and 5A Alley Poles

3.2 LAMPS

The lamps generally used in the District are HPS, Metal Halide (MH), Mercury Vapor, Fluorescent and Incandescent. HPS is extensively used for sign and streetlighting. Because of its relatively low maintenance requirement, the District has been using HPS universally, except for the Monumental Core. MH lamps currently have very limited use (only in the Monumental Core area). Twenty (20) percent of the existing lights use incandescent lamps. Mercury Vapor is used for sign lighting and Florescent is used for underpasses. Mercury Vapor and Incandescent lights are being phased out and replaced by HPS.

3.3 WATTAGE

The District is currently considering a policy to design streetlights based on a lower wattage, so as to keep an extra cushion for higher level of illumination in future. If needed in future, the lower wattage lamps can be replaced by higher wattages. For example, No. 16 poles should be designed for a maximum of 250 Watt (while allowed is up to 400 Watt) and No. 14 poles should be designed for a maximum of 100 Watt (while allowed is up to 150 Watt). This will provide the flexibility of using higher wattages in future.

DDOT also discourages using 400 Watt conversion kits in residential areas.

3.4 ILLUMINATION LEVELS

DDOT uses AASHTO guidelines for roadway lighting for any new design.

3.5 SPECIAL REQUIREMENTS

The Downtown Streetscape Regulation determines the streetlight poles, spacing and pattern in downtown area. There are several Business Improvement Districts (BIDs) in DC. These include Georgetown, Downtown, Golden Triangle and North of Massachusetts Avenue (NOMA) BIDs. The No. 18 poles are generally used in the BIDS. The Downtown BID specifies the pole type and the Golden Triangle BID specifies the color of the pole to be black (Federal 27038). The NOMA BID is being formed, and therefore, its standards are yet to be determined.

The Monumental Core area uses black upright poles (No. 16 or Twin-20) with 400 Watt MH conversion kits. In the District, MH lights are currently being used only in Monumental Core.

The District is in the process of defining Gateways (i.e., significant entry points) into the city. There are approximately 55 Gateways into the District. The Twin-20 poles have been used on Georgia Avenue (inside the DC line) and on New York Avenue (inside the City). 16th Street is also going to have Twin-20 poles.